Doc Code: AP.PRE.REQ

PTO/SB/33 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) MWS-056RCE2

	Application Number	Filed
	10/759,346-Conf. #7444	January 15, 2004
	First Named Inventor: Peter SZPAK *et al.*	
	Art Unit: 2174	Examiner: P. Ke

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant /inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [x] attorney or agent of record. Registration number 64,883
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34.

/Neslihan I. Doran/
Signature

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Typed or printed name

(617) 994-0788
Telephone number

June 29, 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of 1 forms are submitted.

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: June 29, 2010 Electronic Signature for Neslihan I. Doran: /Neslihan I. Doran/

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Dated: June 29, 2010
Electronic Signature for Neslihan I. Doran: /Neslihan I. Doran/

Docket No.: MWS-056RCE2
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Peter Szpak *et al.*

Application No.: 10/759,346 Confirmation No.: 7444

Filed: January 15, 2004 Art Unit: 2174

For: A SYSTEM AND METHOD FOR SCHEDULING THE EXECUTION OF MODEL COMPONENTS USING MODEL EVENTS Examiner: P. Ke

ARGUMENTS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The following is submitted together with a Notice of Appeal under 37 C.F.R. §41.31 and in support of a Pre-Appeal Brief Request for Review in the above-identified Application.

Claims 1-29 and 33-61 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,134,109 by Hayles (hereafter "Hayles") in view of U.S. Patent No. 5,522,073 to Courant et al. (hereafter "Courant") further in view of U.S. Patent No. 6,880,130 to Makowski et al (hereafter "Makowski"). *See* Office Action dated 03/30/2010 (hereafter "Office Action"), page 2. Applicants respectfully traverse this rejection.

1. Claims 1-18 and 33-50

Regarding claims 1-18 and 33-50, at issue in this appeal is whether the cited references, taken singly or in any reasonable combination, disclose or suggest at least *executing, within said graphical modeling environment, during a simulation of said executable graphical model, said at least one executable time-based component in response to said notifying as opposed to in response to a specific point in time* (hereafter "the

executing feature of Applicants' claims 1-18 and 33-50"). Specifically, Applicants submit that the cited references, do not support a valid 35 U.S.C. §103(a) rejection of claims 1-18 and 33-50 because the references, do not disclose or suggest executing the time-based components in response to the notifying *during the simulation of the executable graphical model.*

The pending application provides an executable graphical model that includes one or more executable time-based components that are logically associated with an event. Logical association is a way to specify a causal relationship between the dynamics of a graphical model and the execution of components of the model (*See* Application, page 4, lines 1-6). Logical association allows execution of time-based components to be tied to the occurrence of "model events" during simulation of the model. As such, the Application ties execution of time-based components to the occurrence of an event (*See* Application, page 6, lines 3-5). In other words, the invention of claims 1-18 and 33-50, executes time-based components of a graphical model in response to the occurrence of an event. That is different than the conventional graphical models where the time-based components are executed in response to a time trigger during the simulation of the graphical model.

In the Office Action, the Examiner asserts that Hayles teaches *executing said at least one executable time-based components in response to said notifying as opposed to in response to a specific point in time* (*see* Office Action, page 3, ¶ 3). The Examiner then acknowledges that Hayles and Courant fails to teach *executing within said graphical environment during a simulation of said executable graphical model.* The Examiner asserts that Makowski teaches *executing within said graphical modeling environment during a simulation of said executable model (See* Office Action, pages 3-4). Applicants respectfully submit that the claim feature in question requires the execution of a time-based component in response to notifying as opposed to in response to a point in time during the simulation of the model. Applicants respectfully submit that the Examiner fails to indicate how the combination of the references teach or suggest *executing, during a simulation of said executable graphical model, said at least one executable time-based component in response to said notifying as opposed to in response to a specific point in time.*

Applicants' pending claims 1-18 and 33-50 specifically indicate that a time-based component of a graphical model is executed in response to a notification as opposed to in response to a specific point in time during the simulation of the graphical model. That is,

when the executable graphical model is simulated, the time-based component that conventionally executes at a given point in time, in fact executes in response to a notification. Applicants respectfully submit that the foregoing feature of the pending claims is a whole and should not be broken into disconnected elements for examination.

Applicants respectfully submit that the cited references all fail to disclose or suggest the executing feature of Applicants' claims 1-18 and 33-50. Since the three references individually fail to disclose or suggest this feature, Applicants respectfully submit that the combination of Hayles, Courant and Makowski cannot disclose or suggest the executing feature of Applicants' claims 1-18 and 33-50. Applicants explain below why each reference lacks the foregoing claimed feature.

Regarding Makowski, Applicants respectfully submit that the section of Makowski cited by the Examiner in the Office Action discusses operating various instruments connected to a computer using a graphical program. Makowski further indicates that graphical programs which perform data acquisition, analysis and/or presentation, e.g., for measurement, instrumentation control, industrial automation, or simulation may be referred to as virtual instruments. *See* Col. 13, lines 25-40. However, Makowski is silent about executing a time-component of the graphical program in response to a notification as opposed to a specific point in time during the simulation of the graphical program. Specifically, Makowski fails to disclose or suggest the executing feature of Applicants' claims 1-18 and 33-50.

Regarding Hayles, Applicants respectfully submit that Hayles generally discusses specifying timing and triggering parameters for *hardware* components. For example, figure 10B of Hayles illustrates the *timing and triggering components of a* ***hardware*** *device*, such as a measurement device. In contrast, the present application concerns components of a graphical model provided in a graphical modeling environment.

In the Office Action, the Examiner asserts that Hayles teaches executing the at least one executable time-based component. *See* Office Action, page 3. However, in terms of execution, Hayles merely discusses operation of hardware components, i.e. devices, that are connected to the computer. In contrast, Applicants' pending claims provide that executing of the at least one time-based component is performed *within said graphical modeling environment, during a simulation of said executable graphical model.* The execution of the hardware components of Hayles is <u>not</u> performed *within the graphical modeling environment*

in response to said notifying as opposed to in response to a specific point in time. Rather, Hayles indicates that the user specifies timing and triggering of hardware devices. That is, in Figure 10B of Hayles, the user modifies the timing parameters of the graphical components. As such, the graphical timing components and the hardware devices of Hayles execute in response to a specific point in time, as opposed to executing in response to a notification. Hayles does not disclose or suggest the executing feature of Applicants' claims 1-18 and 33-50.

Regarding Courant, Applicants respectfully submit that Courant merely indicates that a user generates routines by specifying a "when" event and one or more "then" events from a user interface. *See* Col. 2, lines 34-49. In Courant, the user generates the routines using a routine editor illustrated in, for example, Figure 8A. However, the routine editor of Courant is not a part of an executable graphical model with a plurality of executable time-based components. Courant does not cure the shortcomings of Hayles and Makowski with respect to this feature because Courant is silent about the executing feature of Applicants' claims 1-18 and 33-50.

In light of the foregoing remarks, Applicants respectfully submit that the Hayles, Courant and Makowski references, taken either alone or in any reasonable combination, do not disclose or suggest the executing feature of Applicants' claims 1-18 and 33-50.

2. Claims 19-30 and 51-61

Regarding claims 19-30 and 51-61, at issue in this appeal is whether the references cited by the Examiner, taken either singly or in any reasonable combination, disclose or suggest at least *identifying when said condition is satisfied during said execution of said executable model, said execution of said executable model including running a simulation of said executable model within said graphical modeling environment* (hereafter "the identifying feature of Applicants' claims 19-30 and 51-61").

The Examiner indicates that claim 19 is rejected under the same rationale as claim 1. *See* Office Action, page 7. However, claim 19 recited different features than claim 1. Applicants respectfully submit that Hayles does not disclose or suggest the identifying feature of Applicants' claims 19-30 and 51-61.

Courant does not cure the shortcomings of Hayles with respect to these features because Courant discusses software application tools that communicate with each other. The software application tools of Courant cannot be reasonably combined with the hardware devices of Hayles to arrive at the teaching of the identifying feature of Applicants' claims 19-30 and 51-61.

It appears that the Examiner does not apply Makowski for this feature of claim 19. Applicants respectfully note that Makowski generally discuss operating various instruments connected to a computer using a graphical program. However, Makowski fails to disclose or suggest the identifying feature of Applicants' claims 19-30 and 51-61.

In light of the foregoing remarks, Applicants respectfully submit that the Hayles, Courant and Makowski references, taken either alone or in any reasonable combination, do not disclose or suggest the identifying feature of Applicants' claims 19-30 and 51-61.

Therefore, Applicants respectfully request that the outstanding rejection be reconsidered and withdrawn.

Dated: June 29, 2010

Respectfully submitted,

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